

DOS 3.10

User's Guide

Programming Family



**Personal
Computer
Software**

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Computer
Software

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About This Book

This book gives you step-by-step procedures that teach you how to use DOS to do some everyday tasks with your IBM Personal Computer. Instructions for the following tasks are provided in this book:

- Getting a diskette ready to be used
- Copying a diskette
- Comparing your copied diskette
- Copying a file
- Comparing your copied file
- Finding out what is on a diskette or a fixed disk
- Looking at a file
- Changing a file's name
- Removing a file from a diskette or a fixed disk

As you become more comfortable with your computer and DOS, refer to the *DOS Reference* book for more information about DOS commands.

The DOS Library

The IBM Personal Computer Disk Operating System (DOS) Version 3.10 library contains the following four books:

- **Application Setup Guide**—a step-by-step guide that tells you how to set up your applications with DOS 3.10.
- **DOS User's Guide**—a step-by-step guide to the more frequently used DOS commands. The *DOS User's Guide* helps you get started using DOS and do some simple DOS tasks. The book also contains a list of common DOS messages that you can get while using DOS.
- **DOS Reference**—a complete reference about DOS and DOS commands. The *DOS Reference* tells you how to use your fixed disk with DOS, and gives you information about DOS and its functions. A complete list of DOS messages is in this book.
- **DOS Technical Reference**—a complete reference about DOS programming considerations. The *DOS Technical Reference* gives you information about DOS that you may need if you are programming or developing applications. The book also describes the technical advantages and special programming characteristics of DOS.

The *Application Setup Guide*, the *DOS User's Guide*, and the *DOS Reference* come with DOS. The *DOS Technical Reference* must be purchased separately.

Required Reading

You should first read the *Guide to Operations* (GTO) for your computer before you use DOS.

DOS Requirements

Because of its additional functions, DOS Version 3.10 is considerably larger than previous versions. We recommend a minimum memory size of 96K bytes for DOS Version 3.10 (128K bytes if you are using a fixed disk).

Using IBM Applications with DOS 3.10

Because DOS Version 3.10 is different from previous versions of DOS, you cannot use the setup procedure described in the manuals supplied with your IBM applications. Instead, do **one** of the following:

- If you will be installing the IBM PC Network Program, read the *IBM PC Network User's Guide* and use the supplied application installation aid diskette to install applications.
- If you will **not** be using the IBM PC Network Program, follow the procedures given in the *Application Setup Guide*.

Read this book to find out what you need to know before you set up your application. Then refer to the *Application Setup Guide* and set up your application.

Notes:

You should first read the Guide to Operations (GTO) for your computer before you use DOS.

DOS Requirements

Because of its additional functions, DOS Version 3.10 is considerably larger than previous versions. We recommend a minimum memory size of 256K bytes for DOS Version 3.10 (128K bytes if you are using a fixed disk).

Using IBM Applications with DOS 3.10

Because DOS Version 3.10 is different from previous versions of DOS, you cannot use the setup procedures described in the manuals supplied with your IBM applications. Instead, do one of the following:

- If you will be installing the IBM PC Network Program, read the IBM PC Network User's Guide and use the supplied application installation aid diskette to install applications.

- If you will not be using the IBM PC Network Program, follow the procedures given in the Application Setup Guide.

Read this book to find out what you need to know before you set up your application. Then refer to the Application Setup Guide and set up your application.

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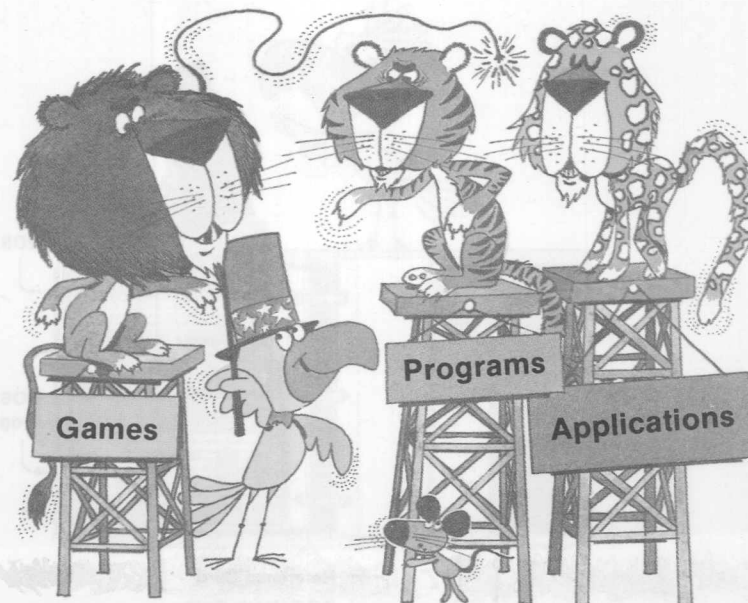
Chapter 1. Introduction

What Is DOS ?

The IBM Personal Computer Disk Operating System (DOS) controls the movement of information on the computer. You can think of DOS as the wild animal trainer in the circus making the animals do feats of physical skill and daring. In much the same way, DOS controls the way the computer uses programs, games, and applications.

DOS makes it easy for you to use applications and create and manage files on your computer. DOS also lets you use devices such as printers, diskette drives, and fixed disk drives with the computer.

This book will help you learn more about how to use DOS to organize and maintain the information you place on diskettes and fixed disks.

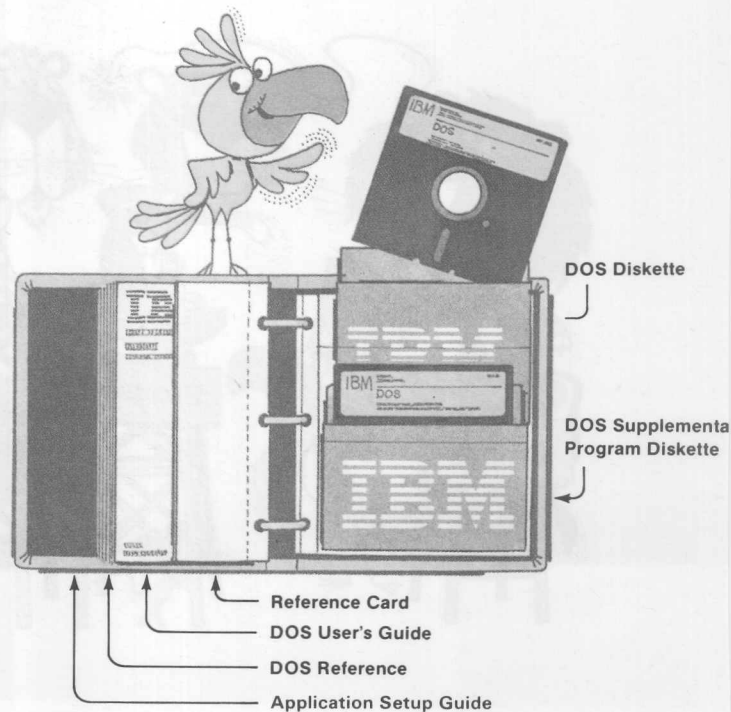


About Your DOS Books and Diskettes

DOS Version 3.10 comes with three books:

- Application Setup Guide
- DOS User's Guide
- DOS Reference

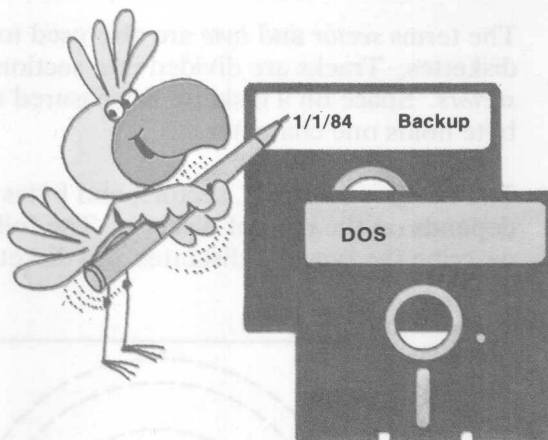
DOS also comes on two diskettes. Both diskettes are in back of the *DOS Reference* in a plastic pocket. The first diskette, labeled "DOS," contains the DOS programs and commands. In this book, the first diskette is referred to as the DOS diskette. The second diskette, labeled "DOS Supplemental Programs," contains the LINK Utility, EXE2BIN, DEBUG, and BASIC sample programs. In this book, the second diskette is referred to as the Supplemental diskette. This is what comes with DOS:



Using Your DOS Diskettes

DOS Version 3.10 is different from previous versions of DOS. When you load DOS for the first time, you need to select the keyboard layout you want to use and the country whose date and time format you want to use.

Read Chapters 1, 2, and 3 of this book and then refer to Chapter 4 and follow the "SELECT Procedure." This procedure makes a *copy* of your DOS diskette that you will use for your everyday tasks.



Label and date the copy using a felt-tip pen. Store the original DOS diskette properly in the paper envelope. Use the copy in your daily operations.



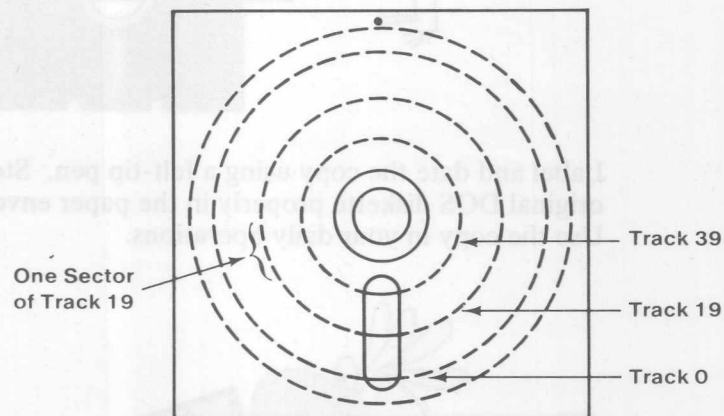
About Diskette Drives and Diskettes

Tracks, Bytes, and Sectors

Information is written on diskettes along concentric circles called *tracks*. The read/write head of the diskette drive moves back and forth from one track to another as the diskette spins. This lets the diskette drive head find certain data to read or find a place to write information.

The terms *sector* and *byte* are also used to describe diskettes. Tracks are divided into sections called *sectors*. Space on a diskette is measured in *bytes*. One byte holds one character.

The number of tracks, sectors, and bytes on a diskette depends on the type of diskette. The following sections describe the types of diskettes and diskette drives.



Types of Diskette Drives

Your IBM Personal Computer can have the following types of diskette drives:

- Single-sided (160KB/180KB)
- Double-sided (320KB/360KB)
- High-capacity (1.2MB)

Types of Diskettes

You can use the following types of diskettes to read and write information:

- Single-sided (160KB/180KB)
- Double-sided (320KB/360KB)
- High-capacity (1.2MB)

A single-sided diskette contains 40 tracks, 8/9 sectors per track, and holds up to 160K/180K bytes of information (K equals 1024).

A double-sided diskette contains 40 tracks per side, 8/9 sectors per track, and holds up to 320K/360K bytes of information (K equals 1024).

A high-capacity diskette is a double-sided diskette that contains 80 tracks per side, 15 sectors per track, and holds up to 1.2M bytes of information (M equals 1,048,576).

Diskette and Drive Compatibility

Some combinations for reading and writing between different diskette and drive types are not allowed. The following sections describe which diskette and drive combinations *are* allowed.

Single-Sided Drives

You can read and write to single-sided diskettes.

Double-Sided Drives

You can read and write to:

- Single-sided diskettes
- Double-sided diskettes

High-Capacity Drives

You can read and write to:

- Single-sided diskettes*
- Double-sided diskettes*
- High-capacity diskettes

* **Warning.** If you write on any of these diskette types using a high-capacity drive, you may not be able to read the diskettes in a single or double-sided drive.

You need to consider diskette and drive compatibility when you use DOS commands that read and write to diskettes. For example, the **FORMAT** command explanation contains a section called “**FORMAT Compatibility.**” Read the sections about compatibility before using the command.

Formatting Your Diskettes

You must format each new or blank diskette before it can be used by DOS. Do not use **FORMAT** every time you want to put information on a diskette—only the first time you use it.

For more information about formatting diskettes, refer to “Getting a Diskette Ready for Use” in Chapter 5.

Write-Protect Notch

Most diskettes have a notch called a *write-protect notch*. If the notch is covered, the diskette is *write-protected*. This means information can be read from the diskette but not be written on it.



To write-protect a diskette, cover the notch with a silver tab that came with the diskette or a piece of tape (do not use transparent tape).

Some diskettes (such as the DOS diskette) do not have a notch. This means that the diskette is already write-protected and information cannot be written on it.

About DOS Devices

DOS Device Names

Some devices that you can use with your computer are displays, diskette drives, fixed disk drives, and printers. DOS refers to these devices by a *DOS device name*. You need to know the DOS device name for any devices you have attached to your computer so you can tell DOS how you want to use a device.

The following table lists some devices and their DOS device name. For a complete list of DOS device names, refer to "DOS Device Names" in the *DOS Reference*.

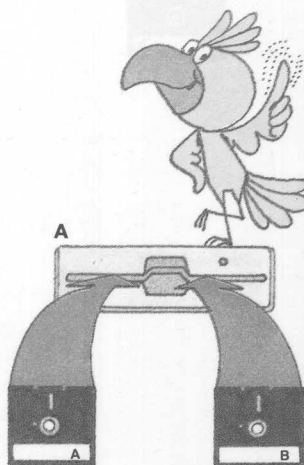
Device	DOS Device Name
Printer	LPT1 or PRN
Display or console	CON (console)
Drives (diskette or fixed disk)	The letters A - Z

What System Do You Have ?

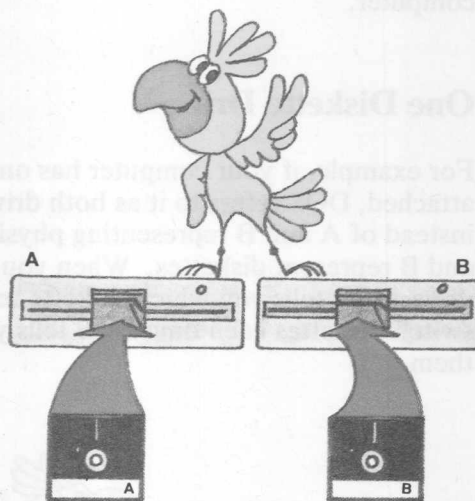
Your computer can have diskette drives or fixed disk drives or a combination of both. DOS refers to diskette and fixed disk drives by the letters A - Z. DOS assigns drive letters to all the diskette drives attached to your computer (beginning with the letter A). Then DOS assigns drive letters to any fixed disks attached to your computer.

One Diskette Drive

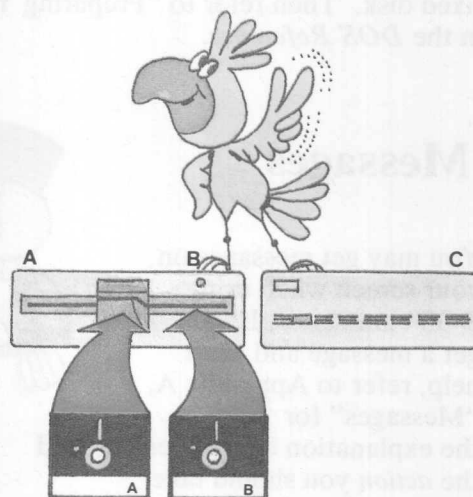
For example, if your computer has one diskette drive attached, DOS refers to it as both drive **A** and **B**. But, instead of A and B representing physical drives, the A and B represent diskettes. When you have one diskette drive, DOS tells you which diskette to insert. You must switch diskettes each time DOS tells you to exchange them.



If your computer has two diskette drives attached, the first diskette drive is referred to as drive **A** and the second diskette drive is referred to as drive **B**. With two diskette drives, you can insert a diskette in each drive and not have to exchange diskettes.



If your computer has one diskette drive and one fixed disk drive attached, the diskette drive is referred to as both drive **A** and **B**. The fixed disk drive is called drive **C**.

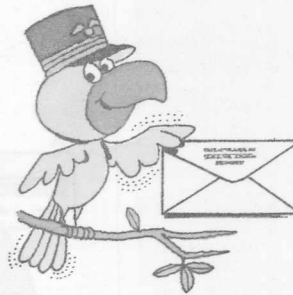


About Fixed Disk Drives

You can use DOS with a fixed disk drive. But, before you can use your fixed disk you must prepare it for DOS. Continue reading this book to become familiar with some of the DOS commands before preparing your fixed disk. Then refer to "Preparing Your Fixed Disk" in the *DOS Reference*.

About Messages

You may get messages on your screen when using DOS commands. If you get a message and need help, refer to Appendix A, "Messages" for the explanation of the message and the *action* you should take.



If the first part of the message contains **NET###** (### is a three-digit number), refer to the *PC Network Program User's Guide* for the message explanation and the action you should take.

Chapter 2. DOS Functions and DOS Editing Keys

DOS Functions

Your computer keyboard has keys to do some particular tasks or functions. Because of the differences between keyboard layouts, this section describes what the keys do. The following shows what keys you press for most keyboards:

Function	Personal Computer	PCjr
Break	Ctrl-Break	Fn then Break
Pause Screen	Ctrl-Num Lock	Fn then Pause
Print Screen	Shift-PrtSc	Fn then PrtSc
Printer Echo	Ctrl-PrtSc	Fn then Echo
System Reset	Ctrl-Alt-Del	Ctrl-Alt-Del

Entering a Command (Enter)

Use when you have finished typing an entire command. It tells DOS to interpret the command or line you typed.

Canceling a Command (Break)

Stops a command from finishing its job normally. This is sometimes called *terminating* a program.

Correcting a Typing Mistake (Backspace)

Moves the cursor back one space to correct a typing mistake *before* you press Enter.

Stopping the Screen (Pause Screen)

Causes the screen to pause when information is appearing on the screen too fast to read.

Printing the Screen (Print Screen)

Prints information currently on the screen. The printer must be on before you press the Print Screen function keys. The whole screen is printed. What is printed is called a *hard copy* or a *printout*.

Printing What You Type (Printer Echo)

Prints one line at a time as it appears on the screen. Now, each time you press the Enter key, or the computer displays a line, the line is printed, or *echoed*, on the printer.

To stop echoing to the printer, press the Printer Echo keys again.

Restarting DOS (System Reset)

Restarts DOS. This is sometimes referred to as *loading* or *starting* DOS. Refer to "Starting DOS" for more information.

DOS Editing Keys

When you type a line and press Enter, DOS puts a copy of the line in an *input buffer* (a temporary storage place). The line is put in the buffer so you can change it and use the line again. This saves you time because you do not have to type the whole line over.

The DOS editing keys are used to edit the line that is put in the input buffer. The following chart describes each of the DOS editing keys.

DOS Editing Key	Description
Ins	Allows you to insert characters within a line.
Del	Deletes one character in the input buffer. The character in the buffer is not displayed and the cursor does not move.
Esc	Cancels the line currently being displayed. The buffer remains unchanged.
F1 or ->	Displays one character from the buffer each time it is pressed.
F2	Displays all characters up to a specified character.
F3	Displays all characters in the buffer.
F4	Deletes all characters up to but not including the specified character. F4 is the opposite of F2.
F5	Accepts the line you edited as the current buffer line.

Using the DOS Editing Keys

For the following examples, assume you typed this line:

```
dir file1
```

and then pressed Enter.

The input buffer now contains the line **dir file1**. If you press F1, the **d** would be displayed. Each time you press F1, another character is displayed. If you press F1 nine times the following is displayed:

```
dir file1
```

If you press F2 and then type the number **1**, the following is displayed:

```
dir file
```

Notice that all characters up to the **1** are displayed.

If you press F3, the following is displayed:

```
dir file1
```

If you press F4 and then type the letter **r**, the input buffer contains the line *r file1*. Then press F3 to display the line. The following is displayed:

```
r file1
```

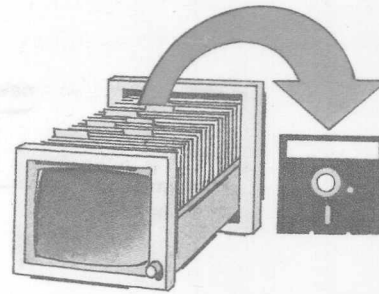

Chapter 3. DOS Files

What Is a File?

A *file* consists of related information (data) you store on a diskette or a fixed disk.

You can compare a file on a diskette or a fixed disk to a file in a file cabinet. One diskette or fixed disk is like a file cabinet drawer. Each file on disk is like a file folder in the file cabinet drawer,

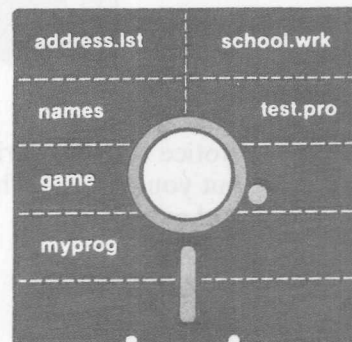
Each file has a name, just like the name on the tab of a file folder. When you want DOS to find a file, you give DOS the *filename*. Filenames are used so that DOS can find the specific information that you need.



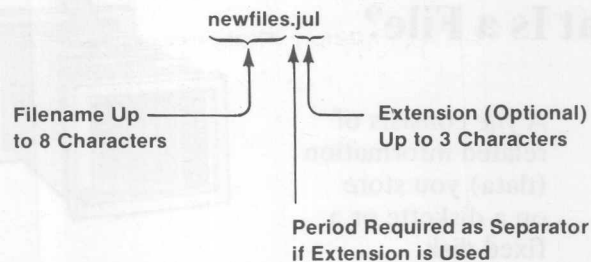
DOS FILES

How to Name Files

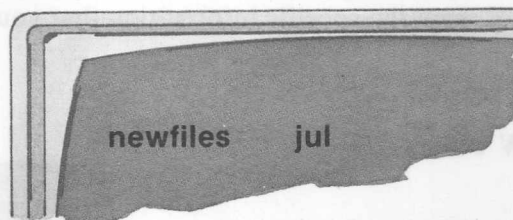
You can store any combination of files on a diskette or a fixed disk. Each file must have a unique or different name, but you can have the same name on different diskettes.



A file's name is made up of a *filename* and an optional *extension*. For example:



If you used the DIR command, a file named `newfiles.jul` would appear on your display screen like this:



Notice that the period does not appear on the screen, but you must use the period when you enter a filename and extension.

characters. The following characters are invalid filenames:

. " / \ [] :

$$| \langle \rangle + = ; ,$$

you must use both parts when telling DOS about the file.

File Specifications

The other thing that DOS needs in order to find information is where to search for a particular file. You must tell DOS the drive that contains the file, the name of the file, and the extension. These three parts together—the drive letter, the filename, and the extension—are called a *file specification*. For example:



A: newfiles.jul

↑
Required Colon

↑
Drive Letter

The drive letter and the colon are called the *drive specifier*. The *drive letter* tells DOS where the file is located. You always need to type the colon (:) after the drive letter as a separator.

The filename and extension immediately follow the drive letter. Do not put any spaces between the three parts.

Note: The drive specifier is not required if the file is in the default drive.

Chapter 4. Starting DOS

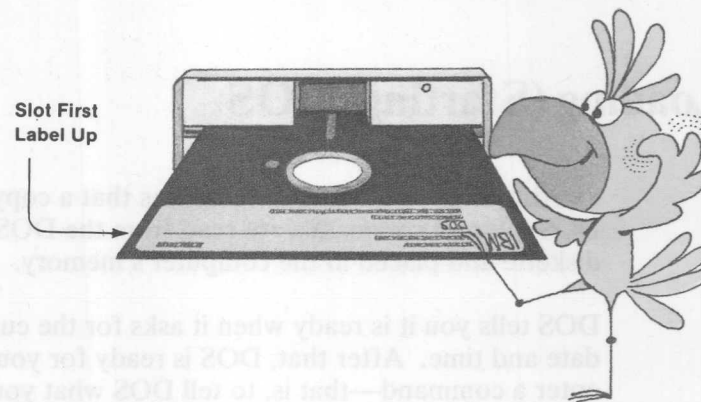
Loading (Starting) DOS

Starting DOS or loading DOS means that a copy of the DOS internal commands are read from the DOS diskette and placed in the computer's memory.

DOS tells you it is ready when it asks for the current date and time. After that, DOS is ready for you to enter a command—that is, to tell DOS what you want it to do.

The first time you load DOS, follow the SELECT procedure described in this chapter. To load DOS after you have followed the SELECT procedure, follow the procedure “Starting DOS for Everyday Use.”

How to Insert Diskettes



1. Remove the diskette from the paper envelope.
2. Open the diskette drive door.
3. **Gently** slide the diskette into the drive with the label side up and toward you.
4. Make sure the diskette is all the way in, and shut the drive door.

Starting DOS the First Time

The first time you load DOS, you need to follow the SELECT procedure to tell DOS information about the type of keyboard you are using and the date and time format you want to use.

The *keyboard code* tells DOS which keyboard layout you want to use. For example, if you are using a U.S. keyboard, you would specify the keyboard code for the US.

The *country code* tells DOS the date and time format. It also tells DOS the currency symbol, and the decimal separator for the country you choose. For example, if you choose the US country code:

- The date format is MM/DD/YY (month/day/year)
- The time format is HH:MM:SS (hours:minutes:seconds)
- The currency symbol is \$ (dollars)
- The decimal separator is . (period)

Use the SELECT procedure that follows to tell DOS the keyboard code and country code of your choice. Choose the values for the keyboard and country code from the table. After you have followed the SELECT procedure, you will have a copy of your DOS diskette that is set up for the keyboard code and country code you chose. For a more detailed description of SELECT and country codes, see the SELECT command in the *DOS Reference Manual*.

Country and Keyboard Codes

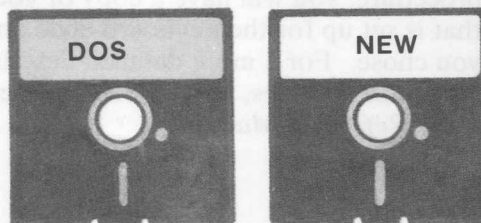
Choose the country and keyboard codes for the SELECT command from the following table:

Country	Country Code	Keyboard Code
United States	001	US
France	033	FR
Spain	034	SP
Italy	039	IT
United Kingdom	044	UK
Germany	049	GR

What's Needed?

You need:

- The DOS diskette
- A new blank diskette (double-sided diskette only)



SELECT Procedure for a One-Drive System

Hint: For this procedure, you can remember which diskette to insert if you remember “Source=DOS diskette” and “Target=new diskette.”

Step	Action
------	--------

1	Insert the DOS diskette in drive A.
---	--

2	Load DOS but ignore the date and time prompts by pressing Enter twice.
---	--

3	At the DOS prompt A>, type:
---	-----------------------------

A>select 001 us

or

A>select 044 uk

or

A>select 033 fr

or

A>select 049 gr

or

A>select 034 sp

or

A>select 039 it

4	Press Enter .
---	----------------------

This message is displayed:

Insert SOURCE diskette in drive A

Press any key when ready . . .

5	Leave the DOS diskette in drive A and press any key. This message is displayed:
---	--

Copying 40 tracks

9 sectors per track, 2 side(s)

Then this message is displayed:

Insert TARGET diskette in drive A

Press any key when ready . . .

6 Remove the **DOS** diskette from drive A.

7 Insert the **target** diskette in drive A.

8 Press any key.

Note: Depending on the amount of memory in your computer, you may have to switch the diskettes again. You will be prompted for which diskette to insert (source or target). Keep switching diskettes until this message is displayed:

Copy another (Y/N)?

9 Type **n**

This message is displayed:

Insert FIRST diskette in drive A

Press any key when ready. . .

10 Leave the **target** diskette in drive A, and press any key. This message is displayed:

Comparing 40 tracks
9 sectors per track, 2 side(s)

Then this message is displayed:

Insert SECOND diskette in drive A

Press any key when ready . . .

11 Remove the **target** diskette from drive A.

12 Insert the **DOS** diskette in drive A.

13 Press any key.

Note: Depending on the amount of computer memory, you may have to switch the diskettes again. You will be prompted for which diskette to insert (first or second). Keep switching diskettes until this message is displayed:

Compare ok

Compare another diskette (Y/N)?

14 Type **n**

This message is displayed:

Insert TARGET diskette in drive A

Strike any key when ready

15 Remove the **DOS** diskette from drive A.

16 Insert the **target** diskette in drive A.

17 Press any key.

You now have a copy of the DOS diskette to use for everyday tasks.

Refer to this diskette as the DOS diskette. The next time you load DOS using this DOS diskette, the date, time, and keyboard layout will be set up for the country code and keyboard code you chose.

SELECT Procedure for a Two-Drive System

Hint: For this procedure, you can remember which diskette to insert, if you remember “Source=DOS diskette” and “Target=new diskette.”

Step	Action
------	--------

1	Insert the DOS diskette in drive A.
---	--

2	Load DOS, but ignore the date and time prompts by pressing Enter twice.
---	---

3	At the DOS prompt A>, type:
---	-----------------------------

A>select 001 us

or

A>select 044 uk

or

A>select 033 fr

or

A>select 049 gr

or

A>select 034 sp

or

A>select 039 it

4	Press Enter .
---	----------------------

The following message is displayed:

Insert SOURCE diskette in drive A

Insert TARGET diskette in drive B

Press any key when ready . . .

5	Insert the target diskette in drive B.
---	---

6 Press any key.

This message is displayed:

Copying 40 tracks
9 sectors per track, 2 side(s)

Then this message is displayed:

Copy another (Y/N)?

7 Type n

The following message is displayed:

Insert FIRST diskette in drive A
Insert SECOND diskette in drive B
Press any key when ready...

8 Press any key.

This message is displayed:

Comparing 40 tracks
9 sectors per track, 2 side(s)

Then this message is displayed:

Compare ok

Compare another diskette (Y/N)?

9 Type n

You now have a copy of the DOS diskette to use for everyday tasks.

Refer to this diskette as the DOS diskette.
The next time you load DOS using this DOS diskette, the date, time and keyboard layout will be set up for the country code and keyboard code you chose.

Starting DOS for Everyday Use

If Your Computer Is Off

- | Step | Action |
|------|--|
| 1 | Insert the DOS diskette in drive A and close the drive door. |
| 2 | Switch on the printer, if you have one, the video monitor or TV, and then the computer. |
| 3 | Wait a moment while the system checks itself out. The length of the pause depends on the amount of memory in your computer; the more memory, the longer the pause. |



If Your Computer Is On

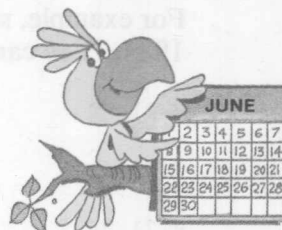
- | Step | Action |
|------|--|
| 1 | Insert the DOS diskette in drive A and close the drive door. |
| 2 | Press and hold the System Reset keys:

Ctrl plus Alt plus Del

Then release them all. |
| 3 | The In-Use light comes on while DOS is being read, and you will hear some clicks and whirs. |



Date and Time



Telling DOS the Date

When DOS is loaded and ready, you will see one of the following messages:

Current date is Tue 1-01-1980
Enter new date(mm-dd-yy): _

or

Enter new date(dd-mm-yy): _

or

Enter new date(yy-mm-dd): _

The cursor shows where the first number you type will appear. Do not type the day of the week. DOS displays the day of the week for your information.

If the current date is correct, press Enter. If incorrect, type the new date, then press Enter. Use the number keys to type the date.

mm Month. Type one or two numbers between 1 and 12 for the month.

dd Day of the week. Type one or two numbers between 1 and 31 for the day.

yy Year. Type two numbers between 80 and 99 or four numbers between 1980 and 1999 for the year.

Separate the three parts of the date (month, day, and year) with a hyphen (-), a slash (/), or a period (.).

For example, suppose the current date is August 31, 1984. You can type:

8-21-84

or

8/21/84

or

8.21.1984

Telling DOS the Time

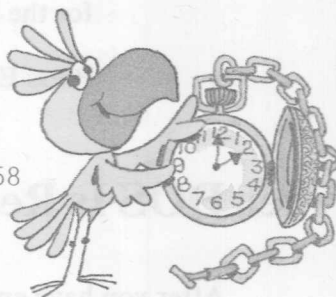
After you enter the date, DOS displays a message similar to this:

```
Current time is 0:01:05.58  
Enter new time: _
```

The format is:

HOURS:MINUTES:SECONDS.HUNDREDTHS OF SECONDS

If the time displayed is correct, just press Enter. Use the number keys at the top of the keyboard to reset the time.



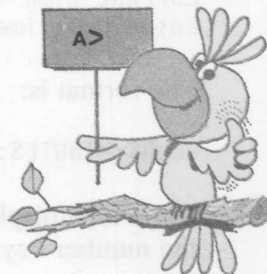
- | Step | Action |
|------|--|
| 1 | Type one or two numbers between 0 and 23 for the hours. |
| 2 | Type a colon (:). |
| 3 | Type one or two numbers between 0 and 59 for the minutes. If the hours and minutes are sufficient, go to step 8. If you wish to enter the seconds and hundredths of seconds proceed with step 4. |
| 4 | Type a colon (:). |
| 5 | Type one or two numbers between 0 and 59 for the seconds. |
| 6 | Type a period (.) or a comma (,) depending on the decimal separator that is displayed on the screen. |

Note: A hyphen (-) or a slash (/) does not work.

- 7 Type one or two numbers between 0 and 99 for the hundredths of seconds.
- 8 Press Enter.

When DOS Is Ready

After you have entered the date and time, DOS displays this:



The IBM Personal Computer DOS
Version 3.10 (C)Copyright IBM Corp 1981, 1982, 1983, 1984
A>_

DOS Prompt

The A> is the DOS *prompt*. It tells you that DOS is ready and it is your turn to enter information, that is, to tell DOS what to do by typing a command.

Specifying the Default Drive

The **A** in the prompt **A>** designates the *default drive*. Whatever letter appears in the DOS prompt is the default drive. DOS searches the default disk drive to find any commands or filenames that you type, unless you specify another drive in the file specification.

You can change the default drive by typing the new drive designation letter followed by a colon. For example:

```
A>      (original prompt)
A>B:    (new drive designation)
Press Enter.
B>      (new prompt)
```

Now, **B** is the drive DOS searches to find any filenames that you type, unless you specify a drive in the file specification.

Remember, if you do not specify a drive when you type a command or filename, DOS automatically searches the default disk drive. In a one-drive system, the default drive may be different from the last disk used.

Notes:

Specifying the Default Drive

The A in the prompt A> designates the default drive. Whatever letter appears in the DOS prompt is the default drive. DOS searches the default disk drive to find any command or filename that you type, unless you specify another drive in the specification.

You can change the default drive by typing the new drive designation letter followed by a colon. For example:

```
A> (for initial prompt)
A>: (new drive designation)
Press Enter
A> (new prompt)
```

Now, if the drive DOS searches to find any filename that you type, unless you specify a drive in the file specification.

Remember, if you do not specify a drive when you type a command or filename, DOS automatically searches the default disk drive. In a one-drive system, the default drive may be different from the last disk used.

Chapter 5. Using DOS Commands

Frequently Used DOS Commands

This chapter discusses some frequently used DOS commands. It also shows the steps to follow in doing tasks that use these commands. Where necessary, you will see steps for a one-diskette drive system and a two-diskette drive system. Follow the steps for the type of system you have.

You can use these DOS commands to do the following tasks:

- Getting a diskette ready to be used (FORMAT)
- Copying a diskette (DISKCOPY)
- Comparing your backup diskette (DISKCOMP)
- Copying a file (COPY)
- Comparing your backup file (COMP)
- Finding out what files are on a diskette (DIR)
- Looking at a file (TYPE)
- Changing a file's name (RENAME)
- Removing a file from a diskette (ERASE)

Read this chapter now to get familiar with these commands. Refer to them when you need to do a task.

As you become more comfortable with your computer and DOS, refer to the *DOS Reference* for more information about these commands and the other DOS commands.

If you get a message on your screen and need help, refer to Appendix A, "Messages" for more information.

When You Need DOS in a Drive

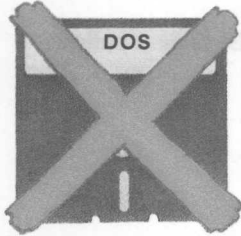
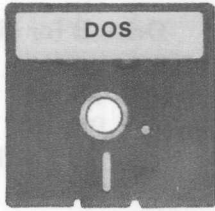
You need to put the DOS diskette in a drive when you first *load* or start DOS. Loading DOS means that a copy of *internal* DOS commands are read from the DOS diskette and placed in the computer's memory.



These commands are called *internal* commands because they stay in the computer's memory until you switch it off or until you load DOS again. Since the commands are loaded in memory, you do not need the DOS diskette in a drive to use the internal commands.

The rest of the commands on the DOS diskette are called *external* commands because they are not read into the computer's memory when you load DOS. Since the commands are not loaded in memory, you need your DOS diskette in a drive to use the external commands.

The following shows the internal and external commands that are covered in this book:

Internal Commands	External Commands
<p>You won't need your DOS diskette for these commands if DOS is already loaded.</p> 	<p>You need your DOS diskette to do these commands.</p> 
<p>DIR COPY ERASE RENAME TYPE</p>	<p>FORMAT DISKCOPY COMP DISKCOMP SELECT</p>

Remember: After loading DOS, you do not need your DOS diskette in a drive to use the internal commands. You need the DOS diskette in a drive to use external commands. Refer to “DOS Commands” in the *DOS Reference* for a complete list of internal and external commands.

Referring to Diskettes and Drives

It's easy to remember which diskette to insert in a drive if you think:

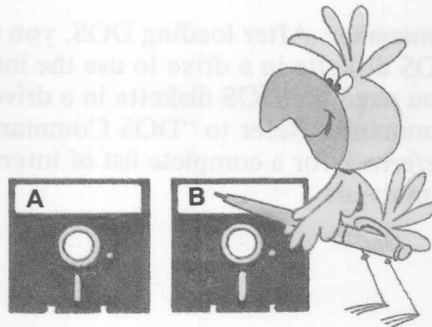
- **Drive A (or diskette A) is called:**

Source
Original
Master
First

- **Drive B (or diskette B) is also called:**

Target
Backup
New or Blank
Second

Until you become more comfortable with which diskette to insert, you can mark an A for source and a B for target on the diskette label. Remember to use a felt-tip pen when labeling a diskette.



Giving DOS a Command

To give DOS a command:

- | Step | Action |
|------|---|
| 1 | Wait until you see the DOS prompt A>. |
| 2 | Type the command and any other parts the command requires (for example, a drive specifier or a file specification).

You can type commands in uppercase or lowercase letters (or a combination). For example:

Dir a:

Use a blank (press the spacebar) to separate the parts of the command. |
| 3 | Press Enter when you have finished. |

Getting a Diskette Ready for Use

Use the **FORMAT** command to get a diskette ready to receive information.

FORMAT checks the diskette for bad spots, and builds a directory to hold information about the files that will eventually be written on it.



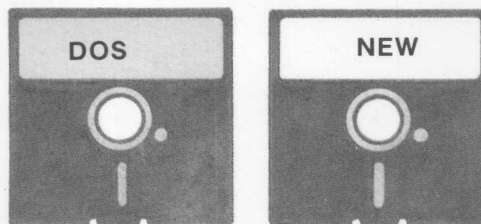
You only need to use **FORMAT** once per diskette, when it is new.

Warning: If you format a diskette that contains information, the information is erased.

What's Needed?

You need:

- The **DOS** diskette
- The diskette you want to format



FORMAT Compatibility

If your computer has single-sided diskette drives, you can only format single-sided diskettes.

If your computer has double-sided diskette drives, you can format:

- Single-sided diskettes
- Double-sided diskettes

If your computer has high capacity-diskette drives, you can format:

- Single-sided diskettes
- Double-sided diskettes
- High-capacity diskettes

To format a single-sided or double-sided diskette in a high-capacity drive, type:

```
format b:/4
```

FORMAT Procedure for a One-Drive System

Step	Action
1	Insert the DOS diskette in drive A (FORMAT is an external command).
2	Make sure DOS is ready and A> is displayed.
3	Type: format b:
4	Press Enter . This message is displayed: Insert new diskette for drive B: and strike ENTER when ready
5	Remove the DOS diskette from drive A.
6	Insert the diskette you want to format in drive A.
7	Press Enter . The message Formatting... is displayed. After a few seconds, this message appears: Formatting...Format complete xxxxxx bytes total disk space xxxxxx bytes available on disk Format another (Y/N)?

- **N** to end the **FORMAT** command. Now the DOS prompt **A>** is displayed, and your diskette is formatted and ready to use.
- **Y** to format another diskette. Repeat the **FORMAT** procedure starting with step 6.

FORMAT Procedure for a Two-Drive System

- | Step | Action |
|------|--|
| 1 | Insert the DOS diskette in drive A
(FORMAT is an external command). |
| 2 | Make sure DOS is ready and A> is
displayed. |
| 3 | Type:

format b: |
| 4 | Press Enter .

This message is displayed:

Insert new diskette for drive B:
and strike ENTER when ready |
| 5 | Insert the diskette you want to format in
drive B. |
| 6 | Press Enter .

The message Formatting... is displayed. After
a few seconds, this message appears:

Formatting...Format complete

xxxxxx bytes total disk space
xxxxxx bytes available on disk

Format another (Y/N)? |

Type:

- **N** to end the **FORMAT** command. Now the DOS prompt **A>** is displayed, and your diskette is formatted and ready to use.
- **Y** to format another diskette. Repeat the **FORMAT** procedure starting with step 5.

Copying a Diskette

Use the DISKCOPY command to make a copy of an entire diskette on another diskette. Use the copy for your operations. Store the original in a safe place.

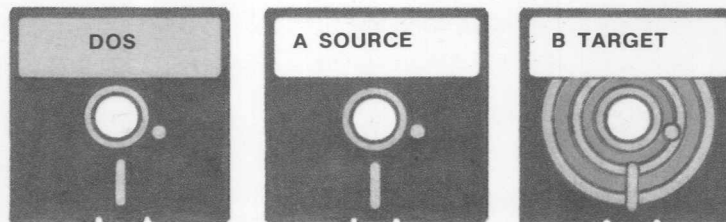


What's Needed?

You need:

- The **DOS** diskette.
- The original diskette you want to copy—called the **source** diskette.
- The diskette that will become the copy—called the **target** diskette.

Warning: If the target diskette contains information, the DISKCOPY command erases the information and replaces it with the information on the source diskette.



DISKCOPY Compatibility

If your computer has single-sided diskette drives, you can use DISKCOPY to copy from one single-sided diskette to another.

If your computer has double-sided diskette drives, you can use DISKCOPY to copy:

- From a single-sided diskette to a single-sided diskette
- From a double-sided diskette to a double-sided diskette

If your computer has high-capacity diskette drives, you can use DISKCOPY to copy:

- From a single-sided diskette to a single-sided diskette
- From a double-sided diskette to a double-sided diskette
- From a high-capacity diskette to a high-capacity diskette

DISKCOPY Procedure for a One-Drive System

Hint: For this procedure, you can remember which diskette to insert, if you remember "Source=Original" and "Target=Copy."

Step	Action
1	Insert the DOS diskette in drive A (DISKCOPY is an external command).
2	Make sure DOS is ready and A> is displayed.
3	Type: diskcopy a: b:
4	Press Enter . This message is displayed: Insert SOURCE diskette in drive A Press any key when ready . . .
5	Remove the DOS diskette from drive A.
6	Insert the source diskette in drive A.
7	Press any key. The In-Use light comes on while the source diskette is read. Then this message is displayed: Insert TARGET diskette in drive A Press any key when ready . . .

8 Remove the **source** diskette from drive A.

9 Insert the **target** diskette in drive A.

10 Press any key.

Note: Depending on the amount of memory in your computer, you may have to switch the diskettes. You will be prompted for which diskette to insert (source or target). Keep switching diskettes until this message is displayed:

Copy another diskette (Y/N)?

11 Type:

- **N** to end the DISKCOPY command. You will be asked to insert the diskette with COMMAND.COM in drive A. Insert the DOS diskette in drive A and press any key when ready. Now the DOS prompt **A>** is displayed, and the source diskette is copied.

Remove the copy. Label and date it using a felt-tip pen. Store the original diskette in a safe place.

- **Y** to copy another diskette. Repeat the DISKCOPY procedure starting with step 6.

DISKCOPY Procedure for a Two-Drive System

Hint: For this procedure, you can remember which diskette to insert, if you remember "Source=Original" and "Target=Copy."

- | Step | Action |
|------|--|
| 1 | Insert the DOS diskette in drive A (DISKCOPY is an external command). |
| 2 | Make sure DOS is ready and A> is displayed. |
| 3 | Type:

diskcopy a: b: |
| 4 | Press Enter .

This message is displayed:

Insert SOURCE diskette in drive A

Insert TARGET diskette in drive B

Press any key when ready . . . |
| 5 | Remove the DOS diskette from drive A. |
| 6 | Insert the source diskette in drive A. |
| 7 | Insert the target diskette in drive B. |
| 8 | Press any key. |

The In-Use lights come on alternately as the source diskette is copied to the target diskette. Then this message is displayed:

Copy another diskette (Y/N)?

9

Type:

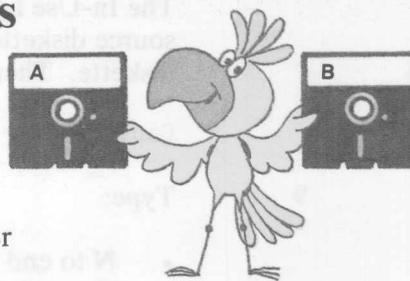
- **N** to end the DISKCOPY command. Now the DOS prompt **A>** is displayed, and the source diskette is copied.

Remove the copy. Label and date it using a felt-tip pen. Store the original diskette in a safe place.

- **Y** to copy another diskette. Repeat the DISKCOPY procedure starting with step 6.

Comparing Diskettes

Use the **DISKCOMP** command to compare the information on one diskette to the information on another diskette.

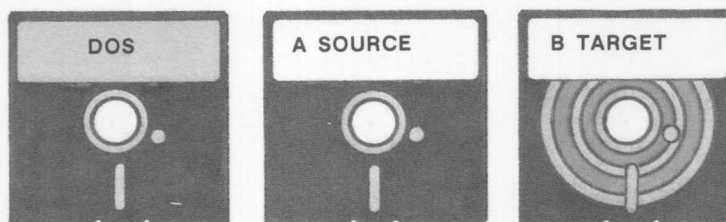


Usually you would use **DISKCOMP** after you use the **DISKCOPY** command to make sure the copied diskette is identical to the original diskette.

What's Needed?

You need:

- The **DOS** diskette.
- The original diskette you want to compare—called the **source** diskette.
- The diskette you want to compare the original to—called the **target** diskette.



DISKCOMP Compatibility

If your computer has single-sided diskette drives, you can use DISKCOMP to compare a single-sided diskette to a single-sided diskette.

If your computer has double-sided diskette drives, you can use DISKCOMP to compare:

- A single-sided diskette to a single-sided diskette
- A double-sided diskette to a double-sided diskette

If your computer has high-capacity diskette drives, you can use DISKCOMP to compare:

- A single-sided diskette to a single-sided diskette
- A double-sided diskette to a double-sided diskette
- A high-capacity diskette to a high-capacity diskette

DISKCOMP Procedure For a One-Drive System

Hint: For this procedure, the source diskette is the *first* diskette and the target diskette is the *second* diskette.

- | Step | Action |
|------|---|
| 1 | Insert the DOS diskette in drive A. |
| 2 | Make sure DOS is ready and A> is displayed. |
| 3 | Type:

diskcomp a: b: |
| 4 | Press Enter .

This message is displayed:

Insert FIRST diskette in drive A
Press any key when ready . . . |
| 5 | Remove the DOS diskette from drive A. |
| 6 | Insert the source diskette in drive A. |
| 7 | Press any key.

The In-Use light comes on while the source diskette is read. Then this message is displayed:

Insert SECOND diskette in drive A
Press any key when ready . . . |
| 8 | Remove the source diskette from drive A. |
| 9 | Insert the target diskette in drive A. |

10 Press any key.

Note: Depending on the amount of memory in your computer, you may have to switch the diskettes. You will be prompted for which diskette to insert (first or second). Keep switching diskettes until this message is displayed:

Compare OK

Compare more diskettes (Y/N)?

Note: If the diskettes do not compare, repeat the DISKCOPY and DISKCOMP procedures.

11 Type:

- **N** to end the DISKCOMP command. Now the DOS prompt **A>** is displayed, and the source diskette has been compared to the target diskette.
- **Y** to compare more diskettes. Repeat the DISKCOMP procedure starting with step 6.

Note: If you get the message:

Insert COMMAND.COM diskette in drive x:
and strike any key when ready

before the DOS prompt **A>** is displayed, insert the DOS diskette in drive A, and press any key. Then the DOS prompt will be displayed.

DISKCOMP Procedure for a Two-Drive System

Hint: For this procedure, the source diskette is the *first* diskette and the target diskette is the *second* diskette.

- | Step | Action |
|------|---|
| 1 | Insert the DOS diskette in drive A
(DISKCOMP is an external command). |
| 2 | Make sure DOS is ready and A> is displayed. |
| 3 | Type:

diskcomp a: b: |
| 4 | Press Enter .

This message is displayed:

Insert FIRST diskette in drive A

Insert SECOND diskette in drive B

Press any key when ready . . . |
| 5 | Remove the DOS diskette from drive A. |
| 6 | Insert the source diskette in drive A. |
| 7 | Insert the target diskette in drive B. |
| 8 | Press any key. |

The In-Use lights come on alternately as the diskettes are compared. Then this message is displayed:

Compare OK

Compare more diskettes (Y/N)?

Note: If the diskettes do not compare, repeat the DISKCOPY and DISKCOMP procedures.

9 Type:

- **N** to end the DISKCOMP command. Now the DOS prompt **A>** is displayed, and the source diskette has been compared to the target diskette.
- **Y** to compare more diskettes. Repeat the DISKCOMP procedure starting with step 6.

Note: If you get the message:

Insert COMMAND.COM diskette in drive x:
and strike any key when ready

before the DOS prompt **A>** is displayed, insert the DOS diskette in drive A, and press any key. Then the DOS prompt will be displayed.

Copying a File

Use the **COPY** command when you want to copy one file instead of a whole diskette.

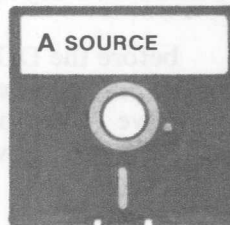
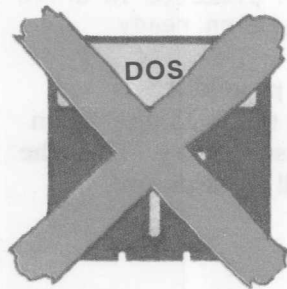


What's Needed?

You need:

- The diskette that contains the file you want to copy—called the **source** diskette.
- The diskette that will contain the copy of the file when you are done—called the **target** diskette.

If DOS has already been loaded, you do not need your DOS diskette for this procedure because **COPY** is an internal command. Also decide on the name for the copied file on the target diskette.



COPY Procedure for a One-Drive System

Hint: It's easier to remember which diskette to insert if you think "B is for backup." Insert the target (backup) diskette when the drive B message appears.

- | Step | Action |
|------|--|
| 1 | Make sure DOS is ready and A> is displayed. |
| 2 | Insert the source diskette in drive A. |
| 3 | Type:

<code>copy a:filename.ext b:</code>

Substitute the name of the file you want to copy for <i>filename.ext</i> . |
| 4 | Press Enter .

This message is displayed:

Insert diskette for drive B:
and strike any key when ready |
| 5 | Remove the source diskette from drive A. |
| 6 | Insert the target diskette in drive A. |

7

Press any key.

Note: Depending on the amount of memory in your computer, you may have to switch the diskettes. You will be prompted for which diskette to insert (source or target). Keep switching diskettes until this message is displayed:

1 File(s) copied

A>_

8

Remove the copied diskette. Label and date it using a felt-tip pen.

COPY Procedure for a Two-Drive System

Hint: It's easier to remember which diskette to insert if you think "B is for backup." Insert the target (backup) diskette when the drive B message appears.

- | Step | Action |
|------|--|
| 1 | Make sure DOS is ready and the A> is displayed. |
| 2 | Insert the source diskette in drive A. |
| 3 | Insert the target diskette in drive B. |
| 4 | type:

copy a:filename.ext b:

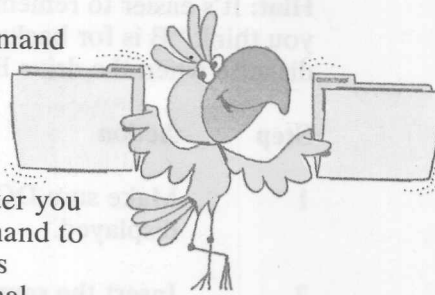
Substitute the name of the file you want to copy for <i>filename.ext</i> . |
| 5 | Press Enter .

The In-Use lights come on alternately as the file is copied. When the copy is complete this message is displayed:

1 File(s) copied
A>_ |
| 6 | Remove the diskettes from the drives. Label and date the copy using a felt-tip pen. |

Comparing a File

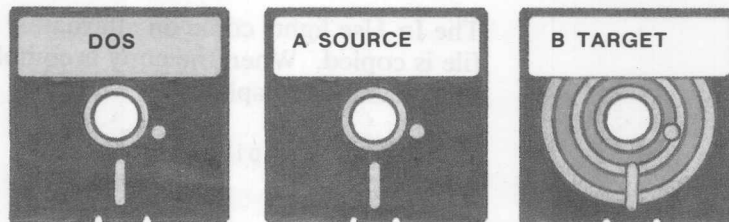
Use the **COMP** command to compare two files to see if they are identical. Usually you would use the **COMP** command after you use the **COPY** command to make sure the copy is identical to the original.



What's Needed?

You need:

- The **DOS** diskette.
- The diskettes that contain the files you want to compare.



COMP Procedure for a One-Drive System

- | Step | Action |
|------|---|
| 1 | Insert the DOS diskette in drive A. (COMP is an external command). |
| 2 | Make sure DOS is ready and A> is displayed. |
| 3 | Type:

comp |
| 4 | Press Enter .

This message is displayed:

Enter primary file name |
| 5 | Remove the DOS diskette from drive A. |
| 6 | Insert the source diskette in drive A. |
| 7 | Type:

a:filename.ext

Substitute your filename for <i>filename.ext</i> . |
| 8 | Press Enter .

This message is displayed:

Enter 2nd file name or drive id |
| 9 | Type:

b:filename.ext

Substitute your filename for <i>filename.ext</i> . |

10 Press **Enter**.

This message is displayed:

Insert diskette for drive B: and strike
any key when ready

11 Remove the **source** diskette from drive A.

12 Insert the **target** diskette in drive A.

13 Press **Enter**.

Note: Depending on the amount of memory in your computer, you may have to switch the diskettes. You will be prompted for which diskette to insert (source or target). Keep switching diskettes until this message is displayed:

Files compare ok

Compare more files (Y/N)?

14 Type:

- **N** to end the COMP command. Now the DOS prompt **A>** is displayed, and the source file has been compared to the target file.
- **Y** to compare more files. Repeat the COMP procedure starting with step 6.

Note: If you get the message:

Insert COMMAND.COM diskette in drive x:
and strike any key when ready

before the DOS prompt **A>** is displayed, insert the **DOS** diskette in drive A, and press any key. The DOS prompt is displayed.

COMP Procedure for a Two-Drive System

- | Step | Action |
|------|---|
| 1 | Insert the DOS diskette in drive A. (COMP is an external command). |
| 2 | Make sure DOS is ready and A> is displayed. |
| 3 | Type:

comp |
| 4 | Press Enter .

This message is displayed:

Enter primary file name |
| 5 | Remove the DOS diskette from drive A. |
| 6 | Insert the source diskette in drive A. |
| 7 | Insert the target diskette in drive B. |
| 8 | Type:

<i>filename.ext</i>

Substitute your filename for <i>filename.ext</i> . |
| 9 | Press Enter .

This message is displayed:

Enter 2nd file name or drive id |

10 Type:

filename.ext

Substitute your filename for *filename.ext*.

11 Press **Enter**.

The In-Use lights come on alternately. When the compare is complete, this message is displayed:

Files compare ok

Compare more files (Y/N)?

12 Type:

- **N** to end the COMP command. Now the DOS prompt **A>** is displayed, and the source file has been compared to the target file.
- **Y** to compare more files. Repeat the COMP procedure starting with step 6.

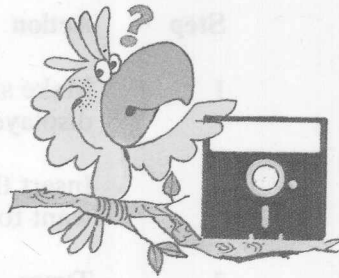
Note: If you get the message:

Insert COMMAND.COM diskette in drive x:
and strike any key when ready

before the DOS prompt **A>** is displayed, insert the **DOS** diskette in drive A, and press any key. Then the DOS prompt will be displayed.

Finding Out What Is on a Diskette

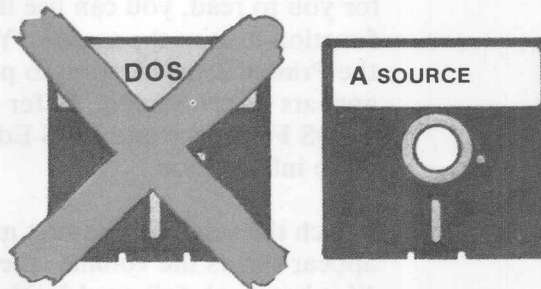
Use the DIR command to find out what files are on a diskette—perhaps because you need to find out how a particular filename is spelled, or because you cannot recall what's on a seldom-used diskette.



What's Needed?

You need the diskette whose file directory you want to see.

If DOS has already been loaded, you do not need your DOS diskette for this procedure because DIR is an internal command.



DIR Procedure

- | Step | Action |
|------|--|
| 1 | Make sure DOS is ready and A> is displayed. |
| 2 | Insert the diskette that has the directory you want to list in drive A. |
| 3 | Type:

dir a:

To list the directory of drive B, type:

dir b:

To list the directory of drive C, type:

dir c: |
| 4 | Press Enter .

Remember: If the screen is moving too fast for you to read, you can use the Pause Screen function to stop the screen. You can also use the Printer Echo function to print what appears on the screen. Refer to Chapter 2 "DOS Functions and DOS Editing Keys" for more information. |
| 5 | Watch the screen. The first message to appear shows the volume label of the diskette (if it has one), followed by the name of the directory being listed. Then the names of the files in that directory are listed. |

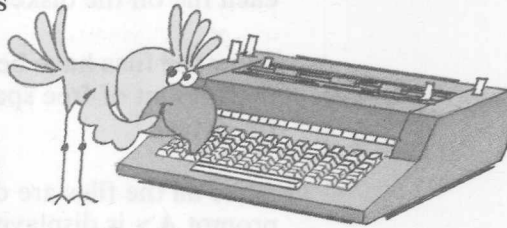
The screen displays the *filename*, the *extension*, the *size* of the file (in bytes), and the date and time that information was last written in the file. One line is displayed for each file on the diskette.

After the files have been listed, DIR displays the amount of free space left on the diskette (in bytes).

After all the files are displayed, the DOS prompt **A>** is displayed.

Displaying What Is in a File

The TYPE command lets you “look into” a file; that is, it displays the contents of a file on the screen.



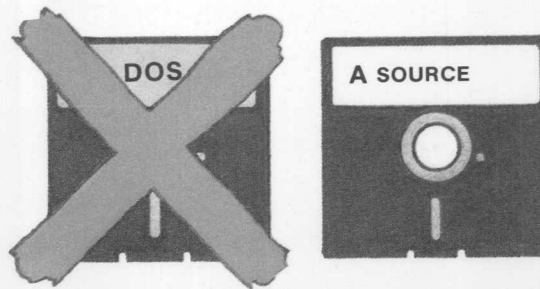
Text files are displayed in a legible format. Non-text files, such as object program files, may not be because characters that are neither alphabetic nor numeric are present.

What's Needed?

You need:

- The diskette that has the file you want to display.
- You also need to know the exact name of the file you want to type (use DIR again).

If DOS has already been loaded, you do not need your DOS diskette for this procedure.



TYPE Procedure

- | Step | Action |
|------|--|
| 1 | Make sure DOS is ready and A> is displayed. |
| 2 | Insert the diskette that has the file you want to type in drive A. |

3 Type:

 type a:filename.ext

Substitute the name of your file for *filename.ext*.

To type a file in drive B, type:

 type b:filename.ext

To type a file in drive C, type:

 type c:filename.ext

4 Press **Enter**.

The contents of the file you specified are displayed on the screen.

Remember: If the screen is moving too fast for you to read, you can use the **Pause Screen** function to stop the screen. You can also use the **Printer Echo** function to print what appears on the screen. Refer to Chapter 2 "DOS Functions and DOS Editing Keys" for more information.

5 After the file's contents are displayed, the DOS prompt **A>** is displayed.

Changing the Name of a File

The RENAME command lets you change a file's name—either its filename, its extension, or both.



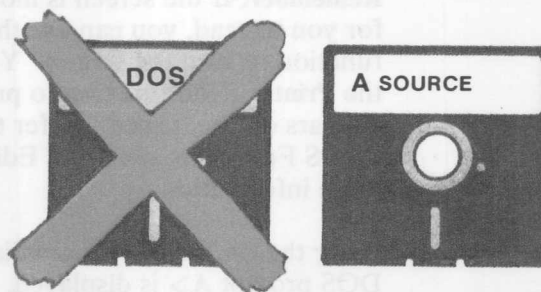
The RENAME command is useful if you want to refer to a file by a different name.

What's Needed?

You need:

- The diskette with the file that you want to rename.
- You also need to know its exact filename and extension, if it has one. (Remember, you can use the DIR command to find out the filename and extension.)

If DOS has already been loaded, you do not need your DOS diskette for this procedure because RENAME is an internal command.



RENAME Procedure

Action

- 1 Make sure DOS is ready and A> is displayed.
- 2 Insert the diskette that contains the file you want to rename in drive A.

- 3 Type:

```
rename a:filename.ext filename.ext
```

Substitute the name of the file you want to rename for the first *filename.ext* and the new name for the second *filename.ext*. Check your typing.

To rename a file in drive B, type:

```
rename b:filename.ext filename.ext
```

To rename a file in drive C, type:

```
rename c:filename.ext filename.ext
```

- 4 Press **Enter**.

After the file is renamed, the DOS prompt A> is displayed.

Removing a File from a Diskette

Use the ERASE command to remove files from diskettes that you no longer need.

Removing old files makes room for new information on a diskette.

It can eliminate a potential source of confusion too—you are less likely to use an old version of a program or an old data file for processing.



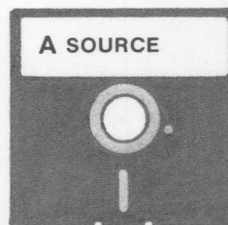
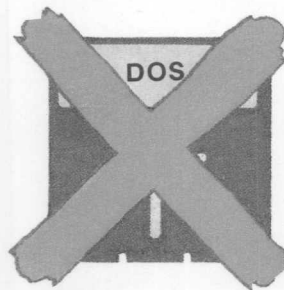
Important: *Plan ahead and check your typing* when you use ERASE. Once a file has been erased, you cannot get it back.

What's Needed?

You need:

- The diskette with the file that you want to erase.
- You also need to know the exact filename and extension of that file (use DIR if you need to).

If DOS has already been loaded, you do not need your DOS diskette for this procedure because ERASE is an internal command.



ERASE Procedure

- | Step | Action |
|------|--|
| 1 | Make sure DOS is ready with A> displayed. |
| 2 | Insert the diskette that contains the file you want to erase in drive A. |

- | | |
|---|-------|
| 3 | Type: |
|---|-------|

`erase filename.ext`

Substitute the name of the file you want to erase for *filename.ext*. Then check your typing.

To erase a file in drive B, type:

`erase b:filename.ext`

To erase a file in drive C, type:

`erase c:filename.ext`

- | | |
|---|----------------------|
| 4 | Press Enter . |
|---|----------------------|

After the file is erased, the prompt **A>** is displayed.

Helpful Hints

We are ending this chapter with a few hints—maybe they may save you some time or help you as you use your IBM Personal Computer.

- Make copies of your diskettes regularly.
- To make sure that a command works, you should:
 - Check your typing.
 - Have the correct diskette in the drive.
 - Check the directory of the diskette with the DIR command.
 - Specify the correct diskette drive. If it is being assumed, be sure it is the correct one.
 - Include the colon.
 - Spell the filename correctly.
 - Use the extension. (In the case of BASIC program files, for example, it is easy to forget the .BAS that BASIC uses for an extension.)
- Refer to the *DOS Reference* for additional information if a command still doesn't work.
- Print a directory frequently (if you have a printer) and store the listing with the diskette. Refer to the **Print Screen** function in the *Guide to Operations* for your computer.



- All commands (except DISKCOPY and DISKCOMP) that use files will work on both diskettes and fixed disks.
- The date and time shown with each directory entry are the date and time of the last addition or change to that file. The date and time are not changed during a COPY or a DISKCOPY.

At first glance, copying all files on a diskette may appear to have the same purpose as DISKCOPY. It does, but only when copying to a diskette with no files on it.

With COPY, if files already exist on the target diskette, they will either be replaced (if files being copied have the same name) or left alone. This is because COPY goes through the original diskette, copying each file, one at a time. COPY does not disturb old files on the target diskette as long as their names aren't the same as files being copied.

DISKCOPY, however, makes an exact copy of the original diskette, wiping out all old files on the target diskette during the copying process.

Notes:

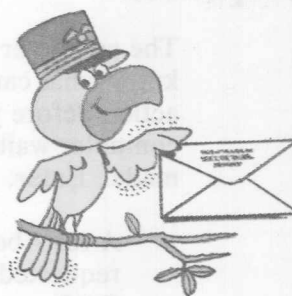
The date and time shown with each directory entry are the date and time of the last addition or change to that file. The date and time are not changed during a COPY or a DISKCOPY.

At first glance, copying all files on a diskette may appear to have the same purpose as DISKCOPY. It does, but only when copying to a diskette with no files on it.

With COPY, if files already exist on the target diskette, they will either be replaced (if files being copied have the same name) or left alone. This is because COPY goes through the original diskette, copying each file once in a row. COPY does not disturb old files on the target diskette as long as their names aren't the same as files being copied.

DISKCOPY, however, makes an exact copy of the original diskette, wiping out all old files on the target diskette during the copying process.

Appendix A. Messages



This appendix contains two parts: *device errors* (the message that DOS uses to indicate errors while reading or writing to devices on your computer) and *common error messages* in alphabetic order. Each message is shown in **bold type**, and the description follows the message.

The first word of the description of each message is the name of the program or command that generated the message.

Device Error Messages

When an error is detected while reading or writing any of the devices (such as disk drives and printer) on your system, DOS displays a message in the following format:

<type> error reading <device>
Abort, Retry, Ignore?

or

<type> error writing <device>
Abort, Retry, Ignore?

Warning: If either of these message appears for a diskette drive, **DO NOT** change diskettes before responding with A, R, or I.

Responses

The computer now waits for you to respond. If you know what caused the problem, you can take corrective action before you actually choose a response. The computer waits until *one* of the following responses is made. Enter:

- **A** for Abort. The system ends the program that requested the disk read or write and returns to DOS.
- **R** for Retry. The system tries the disk read or write operation again.
- **I** for Ignore. The current program terminates.

To recover from an error condition, the responses are generally made in the following order:

1. **R** to retry the operation because the error may not occur again.
2. **A** to abort the program.
3. **I** to abort the current process, if possible, and return you to the calling program.

In these messages, *<device>* is the name of the device in error, such as **PRN**, or **B:**, and *<type>* is one of the following error types:

Data

Explanation: The computer (or DOS) was not able to read or write the data correctly.

Action: Try to correct the error by choosing **Retry** several times. Choose **Abort** if you want to end the program. This message usually means a diskette has developed a defective spot.

Refer to “Responses” in this Appendix.

General Failure

Explanation: An error of a type not described elsewhere in this list has occurred.

Action: Choose **Retry** or **Abort**. This problem requires further investigation by a programmer.

If this is a purchased program, contact the dealer you purchased it from. Refer to “Responses” in this Appendix.

No paper

Explanation: The indicated printer is either out of paper or is not switched on.

Action: Switch on the printer, press the **ONLINE** switch, or add paper and retry. Refer to “Responses” in this Appendix.

Non-DOS disk

Explanation: The file allocation table contains invalid information.

Action: The diskette needs to be reformatted, but try running CHKDSK to see if any corrective action is possible. Copy files to another diskette before reformatting. Files are lost forever once you reformat the diskette. For more information about CHKDSK refer to the *DOS Reference*. Also, refer to “Responses” in this Appendix.

Not ready

Explanation: The named device is not ready, and cannot accept or transmit data.

Action: Check that the diskette drive door is closed and choose **Retry** for your response if this is the problem. Refer to “Responses” in this Appendix.

Read fault

Explanation: DOS was unable to successfully read the data from the device.

Action: Make sure the diskette has been properly inserted in the drive. Then choose **Retry**. Refer to “Responses” in this Appendix.

Sector not found

Explanation: The sector containing the data could not be located on the diskette.

Action: This problem usually occurs when a defective spot develops on the diskette. The diskette needs to be reformatted (copy all files from it first). Refer to “Responses” in this Appendix.

Seek

Explanation: The fixed disk or diskette drive was unable to locate the proper track on the disk.

Action: Make sure the diskette has been properly inserted in the drive. Try a different drive. Refer to “Responses” in this Appendix.

Write fault

Explanation: DOS was unable to successfully write the data to the device.

Action: Make sure the diskette has been properly inserted in the drive. If that is not the problem, choose **Retry**. If you get the same message, choose **Abort** and retry the command with a new diskette. Refer to “Responses” in this Appendix.

Write protect

Explanation: An attempt was made to write on a write-protected diskette.

Action: Investigate carefully whether you want to write on a write-protected diskette. If you do, remove the write-protect tab.

Note: This message will appear if you attempt to use a double-sided diskette in a single-sided drive.

Common Error Messages

This section contains an alphabetic list of some of the more common DOS messages you may get on your screen. (The remainder of the DOS messages are in the *DOS Reference*). Each message is indicated here by **bold type**.

Attempted write-protect violation

Explanation: FORMAT. The diskette being formatted cannot be written on because it is write protected.

Action: You are prompted to insert a new diskette and press any key to restart formatting.

Bad command or filename

Explanation: DOS. The command just entered is not a valid command to DOS.

Action: You should check your spelling and reenter the command. If the command name is correct, check to see that the default or specified drive contains the external command or batch file you are trying to run.

Compare error(s) on drive x, track xx, side xx

Explanation: DISKCOMP. One or more locations on the indicated track and side contain differing information between the diskettes being compared.

Action: This message informs you that there is a difference between diskettes. If you want an exact copy of a diskette, use DISKCOPY.

Cannot DISKCOMP to or from a network drive

Explanation: DISKCOMP. You cannot use the DISKCOMP command to compare files that are on a network drive or on a drive that is on your computer but is currently being shared on the network.

Action: Use the COMP command instead of DISKCOMP.

Cannot DISKCOPY to or from a network drive

Explanation: DISKCOPY. You cannot use the DISKCOPY command to copy files to or from a network drive or on a drive that is on your computer but is currently being shared on the network.

Action: Use the COPY *.* command instead of DISKCOPY. You can also use the COPY command to copy individual files instead of the whole diskette.

Cannot FORMAT a network drive

Explanation: FORMAT. You can't use the FORMAT command to format a drive or a drive that is on your computer but is currently being shared on the network.

Action: No action is required.

**Drive types or diskette types
not compatible**

Explanation: DISKCOMP or DISKCOPY. The source and target diskettes or drives are not compatible.

Action: Refer to the DISKCOMP or DISKCOPY commands for the allowable combinations.

Duplicate filename or file not found

Explanation: RENAME. You tried to rename a file to a filename that already exists on the diskette, or the file to be renamed could not be found on the specified (or default) drive. RENAME is warning you that you are using the same name for two files, or else it cannot find the file you are trying to rename.

Action: Did you type the filename and drive correctly? Take a second look at the filename you want to change, and reenter the command.

File cannot be copied onto itself

Explanation: COPY. You tried to copy a file and place the copy (with the same name as the original) in the same directory and on the same disk as the original file.

Action: Change the name given to the copy, or put it in a different directory, or put it on another diskette.

File creation error

Explanation: DOS and commands. An unsuccessful attempt was made to add a new filename to the directory or to replace a file that was already there.

Action: If the file was already there, it is possible that the file is marked "read only" and cannot be replaced. Otherwise, run CHKDSK to determine if the directory is full or if some other condition caused the error.

File not found

Explanation: DOS and commands. A file named in a command or command parameter does not exist on the diskette in the specified (or default) drive.

Action: Retry the command using the correct filename and drive.

Format failure

Explanation: FORMAT. A disk error was encountered while formatting the target diskette.

Action: The diskette is unusable. Retry the command using another diskette.

**Insert disk with \COMMAND.COM in drive A:
and strike any key when ready**

Explanation: DOS. DOS is attempting to reload the command processor, but COMMAND.COM is not in the drive that DOS was started from.

Action: Insert the DOS diskette in the indicated drive and press any key.

Invalid COMMAND.COM in drive x

Explanation: DOS. While trying to reload the command processor, the copy of COMMAND.COM on the diskette was found to be an incorrect version.

Action: You need to insert the correct DOS diskette in drive x.

Invalid media or track 0 bad - disk unusable

Explanation: FORMAT. FORMAT was unable to format track 0 on the specified media. This error occurs if:

- Track 0 is unusable. Track 0 is where the boot record, file allocation table, and directory must reside. If track 0 is bad, the disk is unusable.
- The diskette type and drive type are incompatible. You tried to format a double-sided diskette in a high capacity drive, or a high-capacity diskette in a double-sided drive.

Action: For the first case, obtain another disk and retry the FORMAT command. For the second case, retry the FORMAT command specifying the /4 parameter.

Invalid number of parameters

Explanation: Commands. You have specified too few or too many parameters for the command you entered.

Action: Correct the command you entered and try again.

Non-System disk or disk error
Replace and strike any key when ready

Explanation: Startup. There is no entry for IBMBIO.COM or IBMDOS.COM in the directory; or a disk read error occurred while starting up the system.

Action: Insert a DOS diskette in drive A and restart your system.

Target diskette may be unusable

Explanation: DISKCOPY. This message follows an unrecoverable read, write, or verify error message. The copy on the target diskette may be incomplete because of the unrecoverable I/O error.

Action:

- If the error is on the target diskette, get a fresh target diskette.
- If the error is on the source diskette, copy all the files from the source diskette to another diskette. Then reformat the source diskette.

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